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MINERAL INDUSTRY SURVEYS

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COPPER IN JUNE 1997

While daily mine production in June rose almost 4%, it was essentially unchanged from that of June 1996. Daily primary smelter production in June rose by 29% from May's low level. Smelter production had been severely curtailed in May owing to the closure of Kennecott's smelter for modification and rebricking, and closure of the Cyprus-Amax's smelter for maintenance. Refinery production dropped sharply in June owing to a shortage of anode at several refineries. Despite the monthly fluctuations, mine, smelter, and refinery production levels for the first 6 months of the year were essentially unchanged from production levels of the first 6 months of 1996. Consumption of refined copper for the first 6 months of 1997 increased by almost 4% from that of the previous year.

Despite lower average prices for copper scrap, the quantity of copper recovered from new and old scrap during the first 6 months of 1997 rose by almost 10% compared with the quantity recovered in the first 6 months of 1996. At brass mills, copper recovery from new scrap for the first 6 months of the year rose by 34,000 tons compared with the equivalent period in 1996, outstripping the 15,000 ton growth in refined consumption. At electrolytic refineries, copper recovery from old scrap rose by 29,000 tons, or about 27%, in part displacing imported blister as the feed material.

Copper prices trended upward in June, with the Comex price reaching a 13-month high of \$1.22 per pound during the week ending June 20. The run-up in prices followed a 3-month decline in inventories held in London Metal Exchange (LME) and Comex warehouses. However, the stock decline and price rise were short-lived and, by the second week in July, prices again averaged below \$1.10 per pound. Prices continued to trend downward and by mid-August the Comex price had fallen to below \$1.00 per pound and combined Comex and LME stocks had risen by 128,000 tons from their low-point in June.

The volatility in prices reflected the conflicting concerns that the close balance between copper production and consumption,

combined with historically low stock levels, would lead to supply shortage, and the speculation that an impending global surge in production would lead to a glut in refined copper. According to data compiled by the International Copper Study Group (ICSG), a close balance between supply and demand for refined copper was maintained during the first 5 months of 1997. Total global inventories (producers, consumers, merchants, and exchanges) at the end of June amounted to only 700,000 tons of copper, or, at the prevailing rate of global consumption, less than 3 weeks of supply (International Copper Study Group, 1997).

According to a company spokesman, major renovations were completed on Kennecott's Utah smelter, and production was resumed on May 27. The smelter had been closed for 6 weeks beginning in mid-April in order to replace the casting wheel and rebuild the flash converting furnace. Since commissioning in 1995, the smelter had failed to reach full capacity. Kennecott now expected full capacity to be achieved by yearend 1997 (Platt's Metals Week, 1997a).

The LME board of directors announced that the LME would continue indefinitely the daily reporting of LME warranted stocks, a program introduced in April on a 6-month trial basis. The program was initiated following recommendations of the UK Securities and Investment Board that were geared at improving industry transparency following revelations of Sumitomo trading losses last year. (Platt's Metals Week, 1997b).

References Cited

- International Copper Study Group, 1997, Copper Bulletin: Lisbon, Portugal, v. 4., no. 7, p. 45.
Platt's Metals Week, 1997a, Kennecott copper smelter back on line: Platt's Metals Week, v. 68, no. 22, June 2, p. 11.
———1997b, LME to continue daily stocks reporting, to add data: Platt's Metals Week, v. 68, no. 24, June 16, p. 2.

TABLE 1
SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES 1/

(Metric tons, unless noted)

	Source table 2/	1996 p/	1997		January- June
			May	June	
Production:					
Primary:					
Mine, recoverable	(2)	1,910,000	161,000 r/	162,000	945,000
Smelter 3/	(3)	1,300,000	90,100 r/	112,000	662,000
Refinery:					
Electrolytic:					
Domestic	(4)	1,290,000	103,000	94,200	643,000
Foreign	(4)	147,000	10,600	7,020	54,400
Electrowon	(4)	574,000	48,200	47,200	282,000
Total	(4)	2,010,000	162,000	148,000	979,000
Secondary recoverable copper:					
Refineries	(5)	333,000	35,400	30,800	201,000
Ingot makers 4/	(5)	124,000	10,300	10,300	62,000
Brass and wire-rod mills	(5)	717,000	67,400	68,600	397,000
Foundries, etc.	(5)	62,400	5,200	5,200	31,200
Consumption:					
Total apparent	(8)	2,620,000 r/	244,000	NA	NA
Refined (reported)	(7)	2,630,000	219,000	217,000	1,380,000
Purchased copper-base scrap	(9)	1,640,000	148,000 r/	151,000	887,000
Stocks at end of period:					
Total refined	(11)	147,000	173,000	163,000	XX
Blister, etc.	(11)	173,000	123,000	136,000	XX
Prices:					
U.S. producer cathode (cents per pound)	(12)	109.044	117.064	120.076	115.638
Imports:					
Ores and concentrates 5/	(14)	72,400	(6/)	NA	NA
Refined	(14)	543,000	61,000	NA	NA
Exports:					
Ores and concentrates 5/	(15)	195,000	6,230	NA	NA
Refined	(15)	170,000	7,190	NA	NA

p/ Preliminary. r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to three significant digits, except prices; may not add to totals shown.

2/ Numbers in parentheses refer to the detailed tables where these data are located.

3/ From domestic and foreign ores.

4/ 1996 and 1997 monthly data estimated based on 1995 monthly average.

5/ Copper content.

6/ Less than 1/2 unit.

TABLE 2
MINE PRODUCTION OF RECOVERABLE COPPER
IN THE UNITED STATES 1/

(Metric tons)

Period	State		Total
	Arizona	Others 2/	
1996: p/			
June	106,000	57,100	163,000
July	103,000	58,400	162,000
August	105,000	58,900	164,000
September	100,000	58,400	158,000
October	105,000	59,300	164,000
November	101,000	59,200	161,000
December	104,000	60,500	164,000
Jan. - June	618,000	319,000	936,000
Year total	1,240,000	674,000	1,910,000
1997:			
January	98,200	59,400	158,000
February	92,800	54,100	147,000
March	107,000	52,700	160,000
April	101,000 r/	56,500	158,000 r/
May	101,000 r/	60,000	161,000 r/
June	100,000	61,800	162,000
Jan. - June	600,000	345,000	945,000

p/ Preliminary. r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes production from Idaho, Illinois, Missouri, Montana, Nevada, New Mexico, Utah, and Wisconsin.

TABLE 3
COPPER 1/ PRODUCED AT SMELTERS IN THE UNITED STATES, BY SOURCE 2/

(Metric tons, copper content)

Period	Domestic and foreign ores	Scrap	Total
1996: p/			
June	105,000	29,300	134,000
July	106,000	29,500	136,000
August	99,600	28,100	128,000
September	114,000	26,800	140,000
October	118,000	27,500	146,000
November	112,000	25,100	137,000
December	116,000	30,800	146,000
Jan. - Jun.	635,000	171,000	807,000
Year total	1,300,000	339,000	1,640,000
1997:			
January	118,000	28,200	146,000
February	110,000	20,800 r/	131,000 r/
March	126,000	27,100 r/	153,000 r/
April	105,000 r/	22,800	128,000 r/
May	90,100 r/	24,000 r/	114,000 r/
June	112,000	26,200	139,000
Jan. - Jun.	662,000	149,000	811,000

p/ Preliminary. r/ Revised.

1/ Includes blister, anode and black copper from primary or secondary sources.

2/ Data are rounded to three significant digits; may not add to totals shown.

TABLE 4
PRODUCTION OF REFINED COPPER, BY SOURCE AND METHOD OF RECOVERY 1/

(Metric tons)

Period	Primary materials				Scrap			Total refined
	Electrolytically refined 2/		Electrowon	Total	Electro-lytically refined 2/	Fire refined	Total	
	Domestic 3/	Foreign						
1996: p/								
June	94,600	9,440	48,300	152,000	17,300	13,700	30,900	183,000
July	110,000	11,700	48,200	170,000	19,700	6,310	26,000	196,000
August	102,000	12,000	47,100	161,000	14,000	11,000	25,000	186,000
September	104,000	13,400	45,900	163,000	13,200	13,900	27,100	190,000
October	118,000	8,970	51,600	179,000	21,100	13,500	34,600	213,000
November	105,000	9,250	47,800	162,000	15,800	10,900	26,800	189,000
December	113,000	8,670	49,700	172,000	18,100	7,800	25,900	198,000
Jan. - Jun.	635,000	83,400	283,000	1,000,000	90,500	77,000	167,000	1,170,000
Year total	1,290,000	147,000	574,000	2,010,000	193,000	140,000	333,000	2,340,000
1997:								
January	114,000	8,240	47,800	170,000	24,500	11,500	36,000	206,000
February	109,000	9,050	43,700	162,000	18,000	12,000	30,000	192,000
March	112,000	7,570	48,000	167,000	21,800	14,600	36,400	204,000
April	111,000	12,000	46,700	169,000	21,800	10,800	32,600	202,000
May	103,000	10,600	48,200	162,000	22,300	13,200	35,500	198,000
June	94,200	7,020	47,200	148,000	20,000	10,800	30,800	179,000
Jan. - Jun.	643,000	54,400	282,000	979,000	128,000	72,900	201,000	1,180,000

p/ Preliminary.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Based on source of material at smelter level.

3/ Includes fire-refined copper.

TABLE 5
COPPER RECOVERABLE IN UNALLOYED AND ALLOYED FORM FROM PURCHASED COPPER-BASED SCRAP 1/

(Metric tons, copper content)

Period	Refineries 2/		Ingot makers 3/		Brass and wire-rod mills		Foundries, etc. 4/		Total 5/
	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
1996: p/									
June	10,900	20,000	2,890	7,440	58,700	4,960	2,240	2,960	110,000
July	6,040	20,000	2,890	7,440	50,100	3,880	2,240	2,960	95,500
August	8,310	16,700	2,890	7,440	55,600	3,870	2,240	2,960	100,000
September	10,300	16,800	2,890	7,440	55,000	3,850	2,240	2,960	101,000
October	11,000	23,700	2,890	7,440	56,300	3,640	2,240	2,960	110,000
November	8,740	18,000	2,890	7,440	53,400	4,580	2,240	2,960	100,000
December	5,740	20,100	2,890	7,440	52,300	4,410	2,240	2,960	98,100
Jan. - Jun.	61,100	106,000	17,300	44,600	347,000	22,400	13,400	17,800	630,000
Year total	111,000	222,000	34,700	89,200	670,000	46,700	26,900	35,600	1,240,000
1997:									
January	10,800	25,200	2,890	7,440	61,500	3,340	2,240	2,960	116,000
February	10,600	19,400	2,890	7,440	60,100	1,170	2,240	2,960	107,000
March	13,300	23,100	2,890	7,440	64,000	2,370	2,240	2,960	118,000
April	10,500	22,100	2,890	7,440	65,900	2,880	2,240	2,960	117,000
May	11,700	23,800	2,890	7,440	64,500	2,900	2,240	2,960	118,000
June	9,620	21,200	2,890	7,440	65,300	3,370	2,240	2,960	115,000
Jan. - Jun.	66,400	135,000	17,300	44,600	381,000	16,000	13,400	17,800	692,000

p/ Preliminary.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Electrolytically refined and fire-refined scrap based on source of material at smelter level.

3/ Data no longer collected monthly; 1995 and 1996 data estimated based on 1995 annual data.

4/ Estimate based on 1995 annual data.

5/ Does not include an estimate, based on reported 1995 data, of 3,100 tons per month from new scrap and 2,330 tons per month from old scrap of copper recovered from scrap other than copper-base.

TABLE 6
PRODUCTION, SHIPMENTS, AND STOCKS OF BRASS AND WIRE-ROD MILL SEMIFABRICATES 1/

(Metric tons, gross weight)

Period	Production		Shipments		Stocks, end of period	
	Brass mills	Wire rod mills	Brass mills	Wire rod mills	Brass mills	Wire rod mills
1996: p/						
June	131,000	163,000	126,000	151,000	55,200	75,200
July	111,000	139,000	114,000	152,000	52,200	62,900
August	130,000	142,000	132,000	156,000	50,300	48,500
September	135,000	163,000	136,000	158,000	49,300	53,200
October	139,000	180,000	139,000	184,000	49,400	50,100
November	135,000	176,000	134,000	171,000	50,700	55,000
December	114,000	155,000	113,000	143,000	52,000	66,500
Jan. - Jun.	784,000	961,000	782,000	955,000	XX	XX
Year total	1,550,000	1,920,000	1,550,000	1,920,000	XX	XX
1997:						
January	134,000	178,000	135,000	183,000	51,100	61,300
February	132,000	169,000	132,000	163,000	51,500	67,200
March	143,000	173,000	143,000	171,000	51,900	69,200
April	137,000	188,000	134,000	185,000	55,000	72,000
May	135,000	176,000	137,000	175,000	52,800	72,500
June	138,000	167,000	133,000	167,000	57,300	72,800
Jan. - Jun.	819,000	1,050,000	814,000	1,040,000	XX	XX

p/ Preliminary. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

TABLE 7
CONSUMPTION OF REFINED COPPER 1/

(Metric tons)

Period and item	Wire rod mills	Brass mills 2/	Other plants 3/	Total
1996: p/				
June	164,000	49,400	4,630	218,000
July	147,000	41,900	4,630	193,000
August	154,000	50,100	4,630	209,000
September	162,000	55,600	4,630	222,000
October	185,000	54,100	4,630	244,000
November	177,000	47,300	4,630	229,000
December	150,000	45,700	4,630	200,000
Jan. - Jun.	1,010,000	293,000	27,800	1,330,000
Year total	1,980,000	588,000	55,600	2,630,000
1997:				
January	179,000	55,000	4,630	239,000
February	172,000	48,600	4,630	225,000
March	174,000	55,500	4,630	234,000
April	188,000	51,000	4,630	244,000
May	165,000	49,800	4,630	219,000
June:				
Cathodes	165,000	30,700	1,120	197,000
Wire bars	--	W	W	W
Ingot and ingot bars	--	2,630	1,660	4,280
Cakes and slabs	--	5,240	W	5,240
Billets and other	--	9,100	1,860	11,000
Total	165,000	47,600	4,630	217,000
Jan. - Jun.	1,040,000	308,000	27,800	1,380,000

p/ Preliminary. W Withheld to avoid disclosing company proprietary data; included with "Billets and other."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ In 1995, brass mills consumed 2,210 tons of refined lead, 706 tons of pig tin, 3,870 tons of refined nickel, and 64,100 tons of slab zinc.

3/ Monthly consumption by ingot makers, chemical plants, foundries, and miscellaneous manufacturers; estimated based on 1995 annual data.

TABLE 8
U.S. APPARENT CONSUMPTION OF COPPER 1/

(Metric tons)

Period	Refined copper production	Copper in old scrap 2/	Net refined imports	Stock change during period	Apparent consumption
1996: p/					
June	152,000	37,700	27,100	(7,400)	210,000
July	170,000	36,600	30,600	23,300	214,000
August	161,000	33,300	40,500	(6,660)	228,000
September	163,000	33,400	41,300	(13,100)	225,000
October	179,000	40,000	22,800	(4,510)	237,000
November	162,000	35,300	42,800	(14,100)	226,000
December	172,000	37,300	26,600	21,500	214,000
Jan. - May	849,000	168,000	142,000	(15,500)	1,060,000
Year total	2,010,000	421,000	374,000	(16,500)	2,620,000
1997:					
January	170,000	41,300	44,300	4,510	251,000
February	162,000	33,300	38,200	2,440	231,000
March	167,000	38,200	37,100	7,060	236,000
April	169,000	37,700	44,800	701 r/	251,000
May	162,000	39,400	53,900	11,900 r/	244,000
June	148,000	37,300	NA	(10,600)	NA
Jan. - May	830,000	190,000	218,000	26,600	1,210,000

p/ Preliminary. r/ Revised. NA Not available.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes reported monthly production of copper from old scrap of copper-base and of non-copper-base materials and estimates for annual reporters based on 1995 data.

TABLE 9
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP 1/

(Metric tons, gross weight)

Period	Smelters and refineries		Ingot makers 2/		Brass and wire-rod mills 3/		Foundries, etc. e/		Total scrap used
	New scrap 2/	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
1996: p/									
June	13,200	36,300	3,870	11,300	73,200	5,990	2,570	3,390	150,000
July	8,120	27,700	3,870	11,300	63,800	4,790	2,570	3,390	126,000
August	10,000	28,100	3,870	11,300	70,700	4,880	2,570	3,390	135,000
September	12,700	27,100	3,870	11,300	69,100	5,010	2,570	3,390	135,000
October	11,600	33,700	3,870	11,300	71,600	4,510	2,570	3,390	143,000
November	10,700	29,200	3,870	11,300	67,900	5,530	2,570	3,390	134,000
December	7,700	31,800	3,870	11,300	66,100	5,400	2,570	3,390	132,000
Jan. - Jun.	68,700	182,000	23,200	67,900	435,000	27,600	15,400	20,300	840,000
Year total	130,000	359,000	46,400	136,000	845,000	57,700	30,800	40,600	1,640,000
1997:									
January	10,900	30,700	3,870	11,300	77,800	3,420	2,570	3,390	144,000
February	10,700	34,700	3,870	11,300	76,300	1,240	2,570	3,390	144,000
March	12,500	33,100	3,870	11,300	81,400 r/	2,470	2,570	3,390	151,000
April	11,000	33,200	3,870	11,300	81,400 r/	2,970	2,570	3,390	150,000 r/
May	11,300 r/	33,500	3,870	11,300	79,300 r/	2,980	2,570	3,390	148,000 r/
June	10,300	34,300	3,870	11,300	81,800	3,480	2,570	3,390	151,000
Jan. - Jun.	66,500	200,000	23,200	67,900	478,000	16,600	15,400	20,300	887,000

e/ Estimated. p/ Preliminary. r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Data for 1996 and 1997 are estimated from 1995 annual data.

3/ Consumption at brass and wire-rod mills assumed equal to receipts.

TABLE 10
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP 1/ 2/

(Metric tons, gross weight)

Scrap type and processor	1996 p/		1997			
	Jan. - Jun.	Year total	April	May	June	Jan. - Jun.
No. 1 wire and heavy:						
Smelters and refiners	79,700	147,000	12,200	14,900	13,700	81,000
Brass and wire-rod mills	187,000	355,000	35,000	35,400	36,700	202,000
No. 2 mixed heavy and light:						
Smelters and refiners	109,000	215,000	18,700	20,500	20,900	122,000
Brass and wire-rod mills	18,800	34,600	3,170	3,620	2,770	18,700
Total unalloyed scrap:						
Smelters and refiners	188,000	362,000	30,900	35,500	34,600	203,000
Brass mills	206,000	390,000	38,200	39,000	39,500	221,000
Red brass: 3/						
All plants	32,800	66,200	5,580	5,700	5,660	33,800
Leaded yellow brass:						
All plants	198,000	397,000	37,200	34,200	36,500	218,000
Yellow and low brass:						
Smelters and refiners	(4/)	(4/)	(4/)	(4/)	(4/)	(4/)
Brass mills	26,400	52,000	4,020	3,600 r/	3,050	21,000
Cartridge cases and brass:						
Smelters and refiners	--	--	--	--	--	--
Brass mills	24,100	45,700	5,190 r/	5,490 r/	4,880	29,600
Auto radiators:						
Smelters and refiners	36,500	73,000	6,080	6,080	6,080	36,500
Bronzes:						
Smelters and refiners	--	--	--	--	--	--
Brass mills	5,690	11,200	1,440	1,200 r/	1,250	7,110
Nickel-copper alloys:						
Smelters and refiners	--	--	--	--	--	--
Brass mills	10,300	20,500	1,340 r/	1,080 r/	1,100	8,350
Low grade & residues:						
Smelters and refiners	43,100	88,800	9,840	6,720 r/	6,820	44,000
Other alloy scrap: 5/						
Smelters and refiners	20,700	41,400	4,380	3,620	4,140	23,700
Brass mills	2,280	4,440	453	408	392	2,340
Total alloyed scrap:						
Smelters and refiners	153,000	309,000	29,100	26,700	25,800	158,000
Brass mills	257,000	512,000	48,000	44,500	45,800	277,000
Total scrap:						
Smelters and refiners	341,000	671,000	60,000	62,200	60,400	362,000
Brass and wire-rod mills	463,000	902,000	86,100	83,500	85,200	498,000

p/ Preliminary. r/ Revised.

1/ Does not include: consumption by foundries, chemical plants and miscellaneous manufacturers, estimated to total about 6,000 tons of scrap per month in 1995; consumption of home scrap at brass mills which averaged 57,200 tons per month in 1995. Monthly data include estimates of about 30,000 tons of scrap per month consumed by ingot makers and several smelters that report only on an annual basis.

2/ Data are rounded to three significant digits; may not add to totals shown.

3/ Includes composition turnings, silicon bronze, zinc bronze, railroad car boxes, cocks and faucets, gilding metal and commercial bronze.

4/ Withheld to avoid disclosing company proprietary data; included in "Other alloy scrap."

5/ Includes refinery brass, beryllium copper, phosphor copper and aluminum bronze.

TABLE 11
COPPER STOCKS AT END OF PERIOD 1/

(Metric tons)

Period	Crude copper 2/	Refined copper					LME 6/	Total refined
		Refineries 3/	Wire rod mills 3/	Brass mills 3/	Other 4/	Comex 5/		
1996: p/								
June	162,000	33,500	13,100	12,700	3,540	6,880	70,400	140,000
July	154,000	41,700	29,700	13,700	3,540	16,100	58,700	164,000
August	161,000	34,000	25,800	13,800	3,540	20,100	59,600	157,000
September	161,000	32,400	19,400	12,800	3,540	19,700	56,000	144,000
October	163,000	33,900	31,000	13,200	3,540	28,600	29,200	139,000
November	167,000	32,200	30,600	11,900	3,540	26,000	20,900	125,000
December	173,000	32,200	32,100	14,000	3,540	26,600	38,300	147,000
1997:								
January	168,000	30,200	28,000	13,100	3,540	16,700	59,800	151,000
February	172,000	33,000	22,300	13,000	3,540	22,500	59,300	154,000
March	142,000	35,500	23,600	10,900	3,540	38,600	48,600	161,000
April	131,000 r/	34,200 r/	23,300	11,500	3,540	44,300	44,500	161,000
May	123,000	35,500	27,000	11,400	3,540	38,700	57,200	173,000
June	136,000	34,700	19,600	10,200	3,540	38,200	56,400	163,000

p/ Preliminary. r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Copper content of blister and other materials in transit and in process of refining.

3/ Stocks of refined copper as reported; no estimates are made for non-respondents.

4/ Monthly estimates based on reported and 1995 annual data, comprising stocks at secondary smelters, chemical plants, foundries, and miscellaneous manufacturers.

5/ Commodity Exchange Inc., New York.

6/ London Metal Exchange Ltd., U.S. warehouses.

TABLE 12
AVERAGE PRICE OF COPPER IN THE UNITED STATES AND
ON THE LONDON METAL EXCHANGE

(Cents per pound)

Period	U.S. producers delivered price		Comex first position 3/	LME cash price Grade A
	Cathode 1/	Wirebar 2/		
1996:				
June	107.828	116.538	104.488	98.447
July	94.007	102.693	90.667	90.006
August	95.479	104.139	92.139	91.072
September	93.848	102.623	90.508	88.026
October	96.873	105.533	93.533	88.935
November	104.097	112.776	100.776	101.149
December	104.114	114.781	102.781	102.837
Average	109.044	117.888	105.872	104.045
1997:				
January	111.949	120.054	108.291	110.417
February	113.564	122.224	110.224	109.081
March	118.141	126.803	114.803	109.803
April	113.034	110.444	109.696	108.420
May	117.064	127.248	115.248	114.025
June	120.076	129.574	117.574	118.476
Average	115.638	122.725	112.639	111.704

1/ Listed as "U.S. producer cathode."

2/ Listed as "Electrolytic wirebar (Warrenton Refining Co.)."

3/ Listed as "Comex high grade first position."

Sources: Platt's Metals Week and American Metal Market.

TABLE 13
NEW YORK AVERAGE BUYING PRICES FOR COPPER SCRAP

(Cents per pound)

Month	Brass mills No. 1 scrap	Refiners No. 2 scrap	Dealers (New York)	
			No. 2 scrap	Red brass turnings and borings
1996:				
June	96.95	83.00	77.85	55.35
July	88.58	69.76	64.43	46.79
August	90.85	73.93	64.00	46.09
September	88.69	72.56	64.00	46.00
October	89.21	73.04	64.00	46.00
November	97.04	79.22	64.63	46.63
December	99.17	81.94	65.00	47.00
Average	101.53	84.42	75.27	51.85
1997:				
January	99.29	81.49	66.13	47.57
February	106.74	87.80	67.42	48.21
March	109.74	91.18	71.80	53.60
April	96.60	80.83	65.77	53.05
May	111.60	94.06	75.43	52.33
June	114.45	95.55	78.24	54.71
Average	106.40	88.48	70.80	51.58

Source: American Metal Market.

TABLE 14
U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY CLASS 1/

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash and precipitates			Blister and anodes			Refined		
	1997			1997			1997			1997		
	1996	May	Jan.-May	1996	May	Jan.-May	1996	May	Jan.-May	1996	May	Jan.-May
Brazil	--	--	--	--	--	--	--	--	--	15,600	5,000	13,300
Canada	9,000	(2/)	(2/)	236	16	84	80,200	5,720	32,600	278,000	26,600	125,000
Chile	59,800	--	19,700	--	--	--	51,700	1,980	17,200	119,000	12,800	55,300
Germany	--	--	--	--	--	--	--	(2/)	(2/)	9,960	3,980	3,980
Japan	--	--	--	--	--	--	(2/)	--	(2/)	3,940	117	2,950
Kazakhstan	--	--	--	--	--	--	--	--	--	2,630	--	3,020
Malaysia	--	--	--	79	--	--	--	--	--	--	--	--
Mexico	3,680	--	--	2,050	80	404	19,600	4,100	8,040	30,300	2,650	9,310
Peru	--	--	--	--	--	--	9,550	--	2,380	64,700	9,180	43,600
Poland	(2/)	--	--	--	--	--	--	--	--	--	676	676
Russia	--	--	--	--	--	--	--	--	--	15,000	--	202
South Africa	--	--	--	--	--	--	638	595	595	102	--	--
Spain	--	--	--	--	--	--	2,710	734	2,030	--	--	--
Taiwan	--	--	--	24	2	17	--	--	(2/)	(2/)	--	(2/)
Uzbekistan	--	--	--	--	--	--	--	--	--	3,570	--	1,830
Other	3	--	13	2	--	--	11 r/	--	--	746 r/	32	379
Total	72,400	(2/)	19,700	2,390	98	506	164,000	13,100	62,900	543,000	61,000	259,000

r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 15
U.S. EXPORTS OF COPPER (UNMANUFACTURED), BY CLASS 1/

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash and precipitates			Blister and anodes			Refined		
	1996	1997		1996	1997		1996	1997		1996	1997	
		May	Jan.-May		May	Jan.-May		May	Jan.-May		May	Jan.-May
Belgium	--	--	--	3	72	319	239	--	52	46	7	20
Brazil	2,810	13	13	5	--	--	--	--	(2/)	25	--	--
Canada	79,900	6,180	28,700	31,500	3,480	14,400	18,000	1,650	7,050	28,700	1,490	9,670
Chile	--	--	--	--	--	--	2	--	13	51	663	919
China	54,500	--	9,150	2	--	--	44	--	997	233	--	--
Germany	76	28	6,120	1	--	--	463	19	87	189	6	44
Hong Kong	16	--	--	29	--	17	1,170	447	2,320	525	2	63
Italy	8	--	--	2	--	--	451	81	378	2,150	45	66
Japan	47,600	--	6,090	2,130	--	61	456	83	412	31,900	1,450	8,320
Korea, Republic of	1,570	--	3,060	19	--	8	1,100	28	477	3,480	92	1,930
Malaysia	--	--	--	--	--	--	(2/)	9	9	6,470	--	--
Mexico	2,340	10	10	2,790	1,300	7,670	410	44	199	11,800	238	988
Netherlands	--	--	--	3	--	7	--	--	--	33	--	417
Singapore	--	--	--	8	--	2	44	63	397	2,690	--	636
Spain	2,800	--	--	6	--	--	15	--	15	7	--	10
Taiwan	--	--	--	--	17	36	330	186	797	54,100	2,000	12,300
Thailand	--	--	--	--	--	--	112	--	22	26,400	1,100	4,090
Other	3,550 r/	--	2	564	48	315	406 r/	25	433	964 r/	93	808
Total	195,000	6,230	53,200	37,100	4,910	22,800	23,200	2,640	13,600	170,000	7,190	40,300

r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

TABLE 16
U.S. COPPER SCRAP TRADE 1/

(Metric tons, gross weight)

Country or territory	Imports						Exports					
	Unalloyed			Alloyed			Unalloyed			Alloyed		
	1996	1997		1996	1997		1996	1997		1996	1997	
		May	Jan.-May		May	Jan.-May		May	Jan.-May		May	Jan.-May
Belgium	--	64	64	33	42	45	9,380	189	1,710	1,440	320	620
Canada	40,500	5,130	24,300	57,700	5,330	24,000	104,000	9,340	47,000	41,900	3,730	17,700
Chile	11,800	--	1,210	178	37	113	--	--	--	5	--	--
China	--	--	--	79	--	--	12,600	1,450	6,140	24,900	1,410	10,700
Colombia	668	154	862	3,020	124	515	--	--	--	3	--	--
Costa Rica	1,320	110	511	386	17	200	--	--	--	--	--	--
Dominican Republic	603	203	550	1,940	121	510	--	--	--	--	--	--
El Salvador	459	101	248	530	57	231	--	--	--	20	--	140
Germany	4	1	3	122	--	79	7,190	1,890	12,000	5,290	291	1,180
Hong Kong	--	--	--	120	--	--	28,600	3,260	14,300	43,200	5,650	16,600
India	--	--	--	--	--	--	3,960	254	759	29,800	2,770	11,300
Indonesia	--	--	--	--	--	71	85	28	57	730	289	442
Japan	2	--	(2/)	83	2	70	19,300	1,730	8,130	18,700	1,560	6,370
Korea, Republic of	--	--	--	18	--	3	5,140	332	1,750	11,200	1,120	5,900
Mexico	27,900	2,530	10,700	42,400	4,520	17,600	2,470	60	276	4,030	562	2,070
Panama	1,020	162	597	1,100	115	410	--	--	--	--	--	--
Peru	785	151	261	784	109	436	--	--	40	647	76	114
Singapore	--	3	3	237	--	1	234	115	136	372	247	480
Switzerland	--	--	--	--	--	17	2,760	--	--	18	--	--
Taiwan	102	27	37	1,480	332	1,400	1,340	19	153	4,970	235	1,410
Thailand	--	--	--	36	--	--	37	--	19	2,460	228	915
United Kingdom	(2/)	--	--	1,310	160	935	194	--	24	381	19	161
Venezuela	2,600	185	922	2,540	123	913	--	--	--	40	--	--
Other	2,590 r/	314	1,290	7,730 r/	640	3,590	354 r/	116	298	5,210 r/	176	1,480
Total	90,300	9,130	41,500	122,000	11,700	51,100	197,000	18,800	92,800	195,000	18,700	77,600

r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Source: Bureau of the Census.